Transport2030: Scenario Modelling

Jenson Varghese and Beth Schuck

MRCagney

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Why?

How this all started

Our Mission

The 1point5 Project aims to focus and amplify the voices of those working towards a 1.5°C world. This not-for-profit is generously supported by The Tindall Foundation and Phillip Mills and other generous souls who have contributed time and skills.
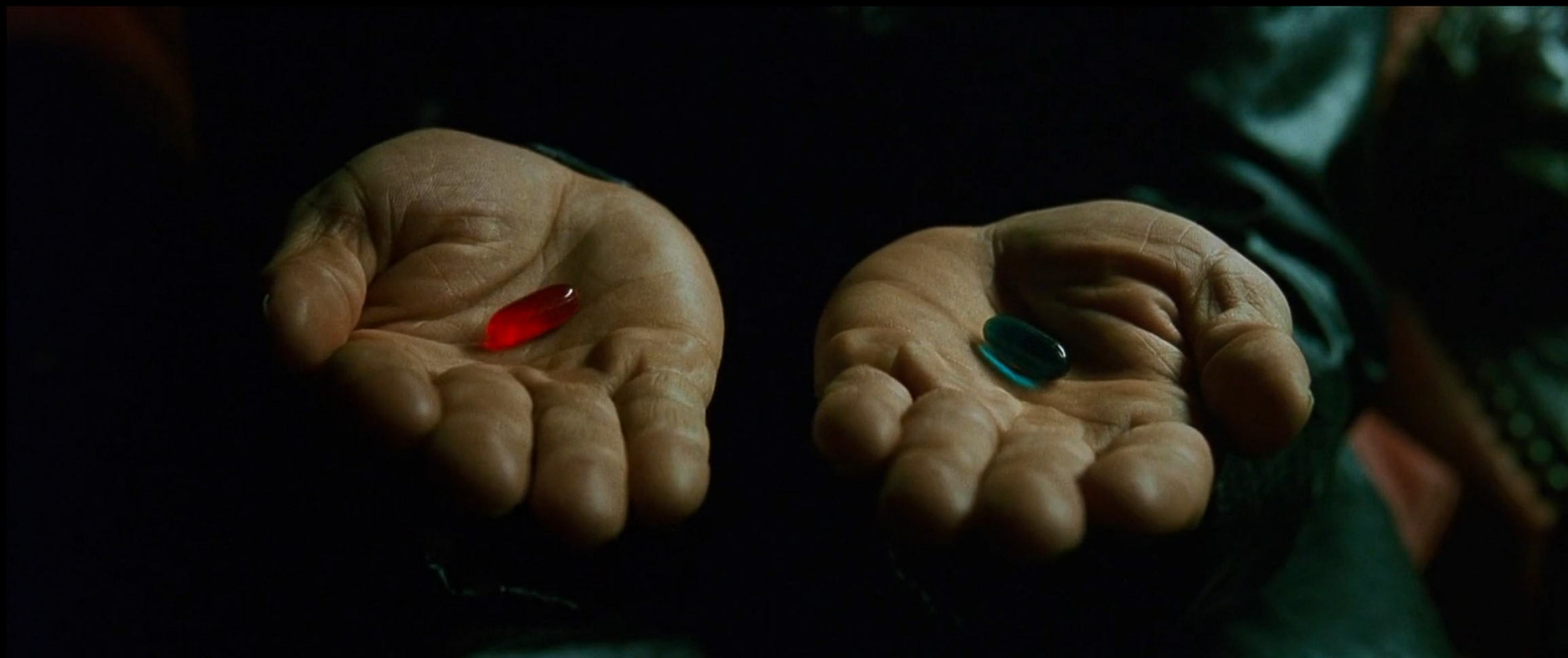
"We stand for well connected, vibrant and liveable places, giving people better, more sustainable choices."

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What does the model do?

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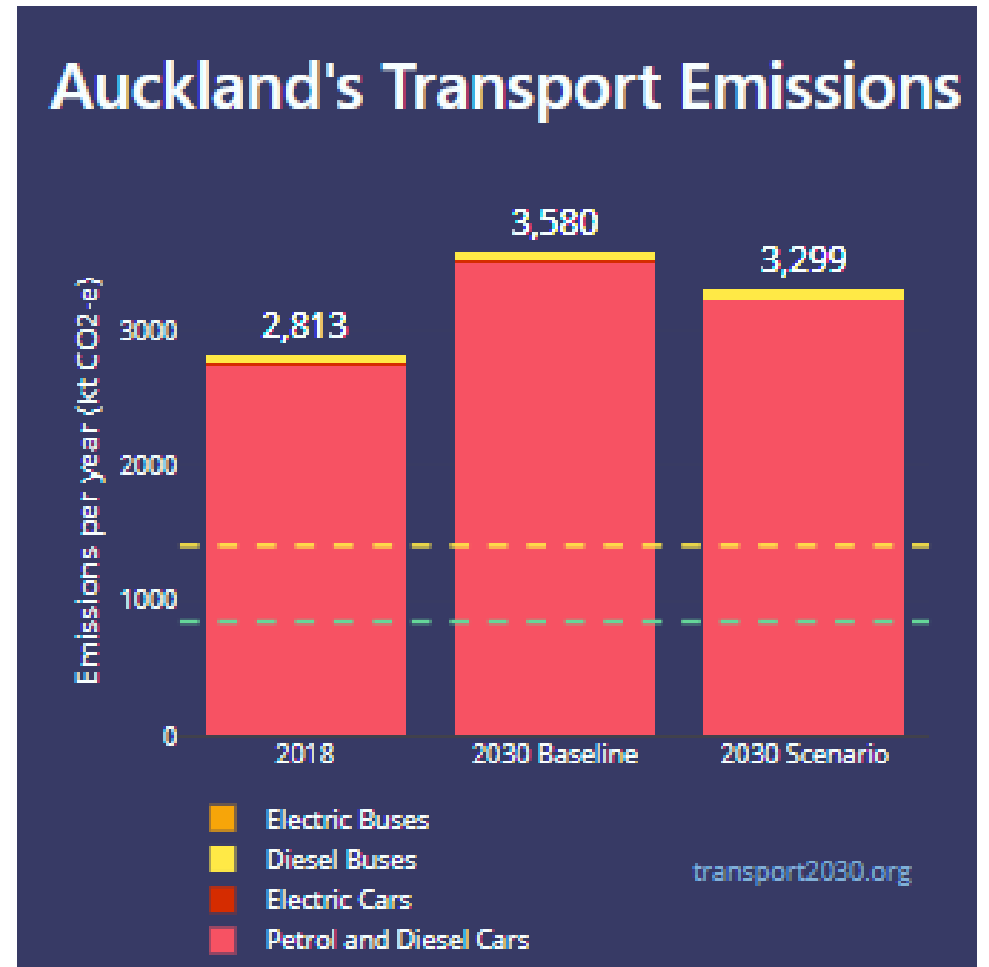
Outputs – What do we want to know?

- GHG emission changes

- Passenger-kilometers travelled (PKT)

- Cars on the road

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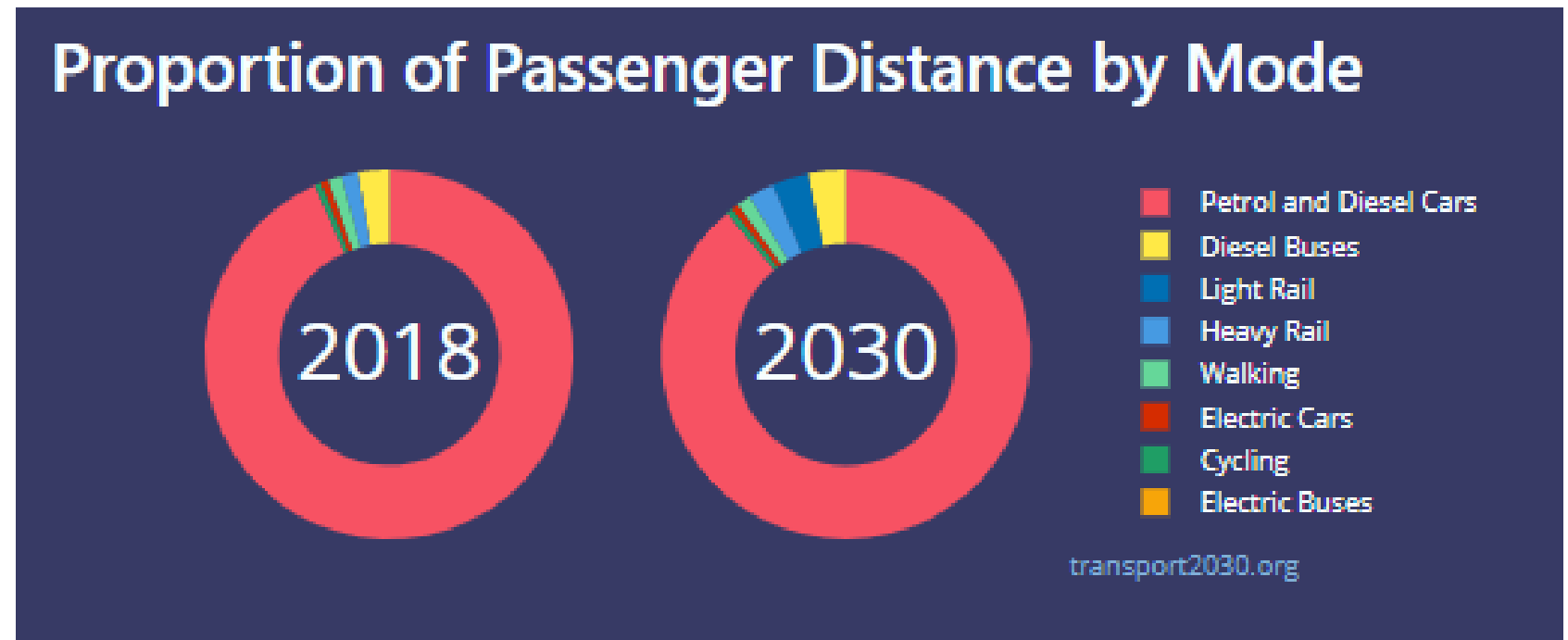BETTER TRANSPORT • BETTER PLACES • BETTER CHOICES

Emissions

- CO2-e per year
- Baseline emissions, and projected emissions
- Tracking with our goals

Auckland's Transport Emissions

PKT

- Proportion of PKT travelled by mode
- Shows diversity of transport choices

Proportion of Passenger Distance by Mode

2018 2030

Legend:
- Petrol and Diesel Cars
- Diesel Buses
- Light Rail
- Heavy Rail
- Walking
- Electric Cars
- Cycling
- Electric Buses

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Cars on the Road

- Approximate measure for the number of cars on Auckland roads
- Based on VKT from cars
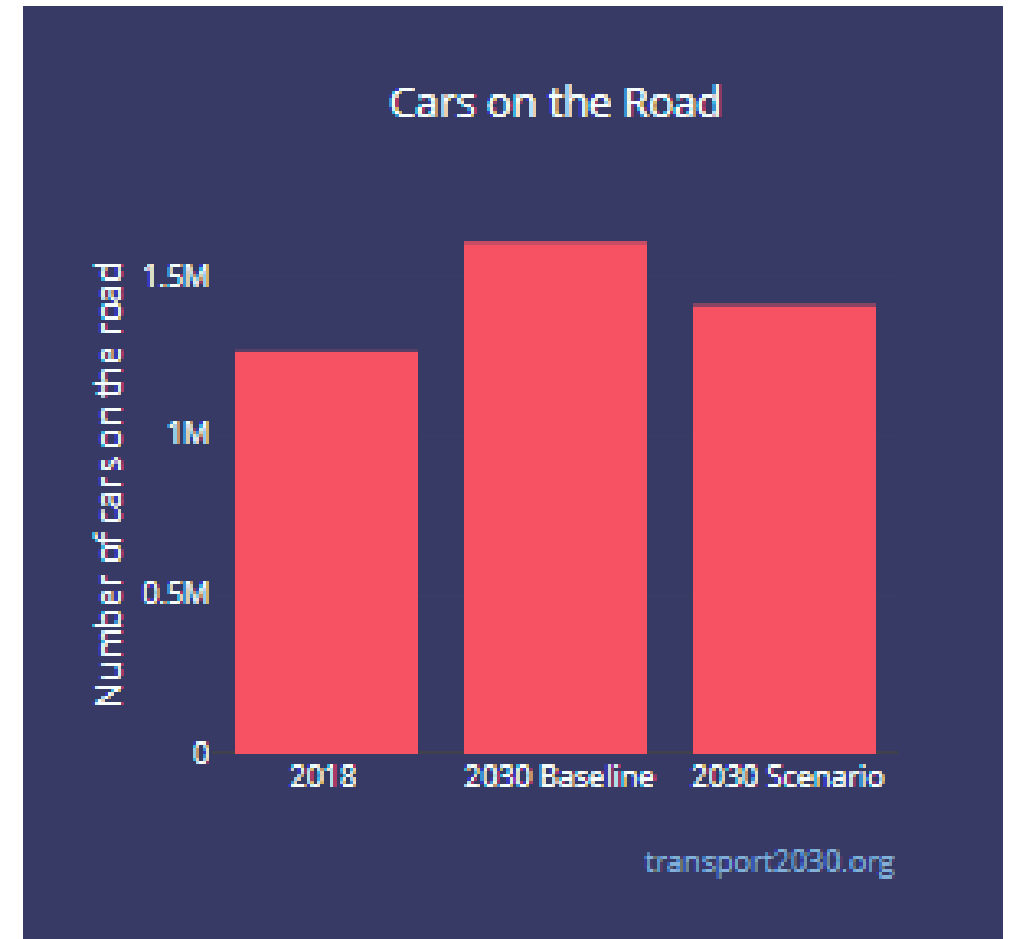
Results and Insights

- We have a range of options

- We need to do some of everything

Insights

Topical commentary on the Auckland economy

Fare deal or essential service: What cuts congestion and emissions most?

Chief Economist Unit | Auckland Council
Te Kaunihera o Tāmaki Makaurau

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Incognito

Auckland's Transport Emissions

More than 35% of Auckland Region's emissions come from road and rail transport. This website illustrates how changing Auckland's transport network can reduce its future carbon emissions.
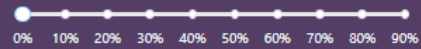
Make a Change

Select from the specific transport projects below to see how they affect emissions. Details of each change are listed at the bottom of the page.

Reduction in Trips Taken

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%
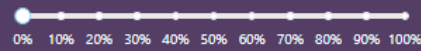
Reduction in Average Trip Length

0% 10% 20% 30% 40% 50% 60% 70% 80% 90%

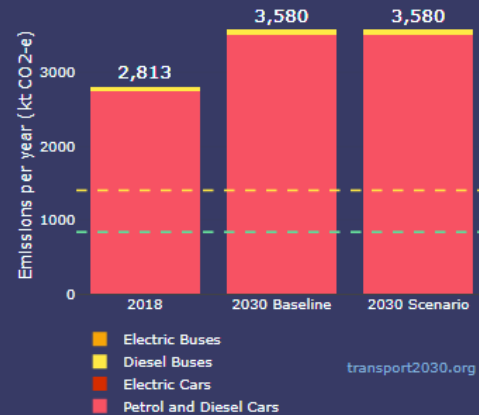## Public Transport Projects

- ☐ City Rail Link
- ☐ Aiport to Botany
- ☐ Isthmus Crosstown
- ☐ Northwestern Light Rail
- ☐ City to Airport Light Rail
- ☐ Eastern Busway (AMETI)

Public Transport Ridership Changes

Auckland's Transport Emissions by Mode

Emissions per year (kt CO2-e)

3,580   3,580

2,813

3000

2000

1000

0

2018   2030 Baseline   2030 Scenario

What's your target?

Target One:
Reduce to 1,400 kt CO2-e

Target One Details

Target Two
Reduce to 840 kt CO2-e

Target Two Details

kt CO2-e = Thousands of tonnes of carbon dioxide equivalent

- 🟧 Electric Buses
- 🟨 Diesel Buses
- 🟥 Electric Cars
- 🟥 Petrol and Diesel Cars

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Proportion of Passenger Distance by Mode

2018   2030

- 🟥 Petrol and Diesel Cars
- 🟨 Diesel Buses
- 🟦 Heavy Rail
- 🟩 Walking
- 🟥 Electric Cars

Summary

- Important to look at a regional or nationwide level

- Sustainable transport is important to minimise increases but current planned projects aren't enough

- To meet our goals, we have to fundamentally change BAU (SOVs, number of trips and trip length)

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